

C1
BT
cont

underlayer is preferably about 15 to 33 at%. The lower limit of the P concentration in the NiP underlayer is 15 at% at which the NiP underlayer can substantially show a non-magnetic property, since the NiP underlayer should have a non-magnetic property to avoid any problems in the magnetic recording. The NiP alloy may have different forms, and when the NiP alloy in the form of a crystalline body is considered, the NiP alloy with the highest P concentration is Ni_3P which is known to be a non-magnetic material. Further, it is also known that NiP can be in the form of an amorphous structure, if the P concentration is in the range of 15 to 26 at%. Note, in this connection, that the NiP layer in an amorphous form has substantially a non-magnetic property, but, if the P concentration is reduced to below 15 at%, a magnetic property is produced in the NiP layer as a result of deposition of a Ni layer. The upper limit of the P concentration in the NiP underlayer is 33 at%, because if the P concentration is increased to above 33 at%, there is no target NiP sufficient to satisfy the sputtering process. That is, the NiP target material containing an increased amount of P is brittle and therefore it cannot be fabricated to a hard NiP target having a high purity.

In the Claims:

Please amend claims 2, 3, 5, 6, 7, 8, 9 and 12 as follows:

Sub F1
B2

2. (Amended) The magnetic recording disk according to claim 1, in which said second underlayer has circumferentially distributed stripe-like ridges and grooves on a surface thereof.

3. (Amended) The magnetic recording disk according to claim 2, in which said second underlayer has a surface roughness Ra_1 in a circumferential direction